

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(s): Kai Narvanen CONF. NO.: 2773
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TITLE: ARRANGING PACKET DATA CONNECTIONS IN OFFICE SYSTEM
ATTORNEY
DOCKET NO.: 442-010673-US (PAR)

Mail Stop Amendment
Commissioner of Patents
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PRELIMINARY AMENDMENT

I. INTRODUCTION

This is in response to the teleconference with the Examiner on 10 January 2008.

II. CLAIM AMENDMENTS

1. (Currently Amended) A telecommunications system which comprises an office network, an operator network, and a local area network between them, wherein the office network comprises:

at least one mobile station,

a base transceiver station,

a radio access gateway configured to control the base transceiver station and having a functional connection with the local area network and to configure the data transmission protocols between ~~nef~~ said at least one mobile station ~~system~~ and ~~the~~ local area network ~~to each other~~,

a serving support node which is configured to support ~~the~~ a packet data protocol of said said at least one mobile station ~~system~~ and to have a functional connection with said radio access gateway,

a packet control unit which is configured to support the packet data protocol of said at least one mobile system ~~station~~ and to have a functional connection with said radio access gateway and serving support node, and

a gateway support node which is configured to support the packet data protocol of said said at least one mobile system ~~station~~ and to have a functional connection with said radio access gateway, serving support node, and packet control unit, and

wherein the operator network comprises adaptation functions for configuring data transmissions from the office network through the local area network at least to the data transmission protocol according to said mobile system-station and used by ~~the~~ public land mobile network.

2. (Currently Amended) A telecommunications system as claimed in claim 1, wherein

said at least one mobile station is configured to support the packet data protocol of said mobile systemoffice network,

and in response to a packet data connection request made by the at least one mobile station, the serving support node and the gateway support node are configured to establish a packet data connection to a destination address defined by ~~the~~a link request.

3. (Currently Amended) A telecommunications system as claimed in claim 2, further comprising:

a location database for registering ~~the~~mobile stations belonging to the office network and for managing location and subscriber information,

~~an adaptation function~~ in the operator network for configuring a packet data connection from the office network through the local area network toat leastto the packet data protocol used by the public land mobile network,

and in response to the packet data connection request made by ~~the~~amobile station, the office network is configured alternatively

to establish a packet data connection to the destination address defined by the link request through the serving support node and gateway support node of the office network in response to the fact that said mobile station is registered to the office network, or

to route the packet data connection to the public land mobile network for onward routing to the destination address in response to the fact that said mobile station is not registered to the office network.

4. (Currently Amended) A telecommunications system as claimed in claim 1, wherein

an_office-specific base transceiver station, radio access gateway, serving support node, packet control unit, and gateway support node are implemented as one element of the telecommunications system.

5. (Currently Amended) A telecommunications system as claimed in claim 1, wherein

said radio access gateway, serving support node, packet control unit, and gateway support node are implemented as one element of the telecommunications system in such a manner that the element is configured to control one or more office-specific base transceiver stations.

6. (Previously Presented) A telecommunications system as claimed in claim 1, wherein

a data transmission connection is configured from the gateway support node to a Dynamic Host Configuration Protocol ("DHCP") server for dynamically defining the IP addresses of mobile stations.

7. (Previously Presented) A telecommunications system as claimed in claim 1, wherein the operator network further comprises interfaces corresponding to said packet data protocol for establishing a packet data connection between at least the serving support node or gateway support node and an external data network.

8. (Currently Amended) A method for establishing a packet data connection in a telecommunications system which comprises an office network, an operator network, and a local area network between them, the office network comprising at least one mobile system terminal which is arranged to support a packet data protocol, a base transceiver station, and a radio access gateway controlling the base transceiver station and arranged to have a functional connection with the local area network, a serving support node, a packet control unit, and a gateway support node, which are configured to support the packet data protocol of said mobile system terminal and to have a functional connection with each other and with said radio access gateway, the method comprising

making a packet data connection request from the mobile system terminal to said office network, and

establishing a packet data connection from the serving support node and gateway support node to a destination address defined by the apacket data connection request,

configuring thedata transmission protocols fordata transferred between said mobile system terminal and thelocal area network toeach other in said radio access gateway, and

configuring a ~~the~~-data transmission from the office network through the local area network to at least the data transmission protocol according to said mobile ~~station~~system terminal and used by ~~the~~a public land mobile network in said operator network.

9. (Currently Amended) A method as claimed in claim 8, wherein the telecommunications system also comprises a location database for registering the mobile ~~system terminals~~stations belonging to the office network and for managing location and subscriber information, and ~~wherein~~ the operator network includes at least one ~~adaptation~~ function for configuring the packet data connection from the office network through the local area network to at least the packet data protocol used by the public land mobile network,

and in response to the packet data connection request made by ~~the~~a mobile ~~system terminal~~station, the office network is configured to alternatively

establishing a packet data connection from the office network to the destination address defined by ~~the~~a link request through the serving support node and gateway support node of the office network in response to the fact that said mobile station ~~system terminal~~ is registered to the office network, or

~~routing~~ the packet data connection to the public land mobile network for onward routing to the destination address in response to the fact that said mobile station ~~system terminal~~ is not registered to the office network.

10. (Currently Amended) A network element of a telecommunications system for supporting packet data connections in an office system which comprises at least one mobile system terminal, a base transceiver station, and a radio access gateway

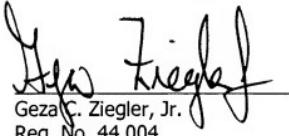
controlling the base transceiver station and configured to have a functional connection with the local area network and configured to-to configured the data transmission protocols for communications between of said at least one mobile system terminal and the local area network to each other, wherein the network element comprises

a serving support node, a packet control unit, and a gateway support node, which are configured to support the packet data protocol of said mobile system terminal and to have a functional connection with each other and with said radio access gateway.

III. REMARKS

The claims are amended to address antecedent basis and grammatical errors noted by the Examiner as well as some other informal issues. Entry of this amendment is respectfully solicited.

Respectfully submitted,



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